

**DOCKET NO. 148379**  
**Serial No. 10/803,620**  
**Response to Office Action of December 9, 2005**

**PATENT**

**REMARKS**

Claims 1-30 and 35 are in the case.

This Reply is being filed within two months of the mailing date of the Final Rejection dated December 9, 2005. No amendments are being made to claims. For the following reasons, Applicant believes that the rejections of the claims over U.S. Patent 4,356,146 ("Knappe") are improper, and, therefore, Applicant respectfully requests that the current rejections be withdrawn.

The courtesies extended by Examiner Palabrica in granting a telephone interview on January 3, 2006 with attorney for Applicant, Brian L. Belles, are noted with appreciation. The interview was helpful in understanding how the Knappe reference was being applied to the claims. Specifically, the interview was helpful in clarifying that the system shown in FIG. 1 of Knappe was being applied to the claims. It was agreed that the system shown in FIG. 2 of Knappe was not relevant because the fuel rods 4 were horizontally stored in a cavity having a cross-section that could accommodate a plurality of canisters, which is contrary to the limitation set forth in claim 1 that "the cavity has a cross-section that accommodates no more than one spent fuel canister."

With respect to the system shown in Figure 1 of Knappe, Mr. Belles then asserted that because the illustration is bifurcated/truncated, it is absolutely impossible to determine the size of the cavity that stores the material 4, and, therefore, the rejection of claim 1 over the system shown in FIG. 1 is clearly improper because there is no teaching of a "cavity having a cross-section that accommodates no more than one spent fuel canister." It was then requested that all arguments be put in writing. Accordingly, this Reply is being filed.

***Claim Interpretation***

As a threshold matter, the claim language "the cavity has a cross-section that accommodates no more than one spent fuel canister" was suggested during the in-person interview with the Examiner to differentiate the invention from storage facilities that

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accommodate multiple storage canisters in a single ventilated cavity, such as warehouse storage facilities. It is respectfully requested that this language be interpreted consistently throughout the prosecution of the application, irrespective of the prior art reference being applied.

Similarly, the claim language "the below grade outlet in spatial cooperation with the cavity" was also suggested during the in-person interview with the Examiner. As discussed during the in-person interview, this language was added to clarify that the below-grade opening formed a passageway between the at least one inlet ventilation duct and the cavity that stores the spent fuel canister. It is respectfully requested that this claim language be interpreted as such, and that the statement set forth on pages 4 and 5 of the Office Action be withdrawn. Moreover, it is well established that a patentee can be his own lexicographer and, absent this, that claim terms be given their plain meaning. *See* MPEP § 2111.01(I)-(III). Thus, the claim limitation that "the below grade outlet be in spatial cooperation with the cavity" should be interpreted to require that the below grade outlet form an opening into the cavity itself. Finally, in asserting that this claim limitation was disclosed by Knappe, the Office Action states that the Knappe reference discloses the "below grade outlet having a spatial relationship with the cavity." However, the term spatial cooperation is very different than the term spatial relationship. If the Examiner believes that more suitable language can be used, it is requested that such language be suggested.

### ***The Deficiencies of Knappe***

Regarding the system shown in Figure 1 of Knappe, it was stated during the interview that the elements 5 and 9 and the other material illustrated having a diagonally-lined cross-section is being interpreted to read on the claim term "the body." It was further stated that the enclosed internal volume of the Knappe system that is holding the material 4 is being interpreted to read on the claim term "cavity." It was also stated that the passageway 3 of the Knappe system that extends from the above-grade openings 1, 2 was being interpreted to read on the claim term "at least one inlet ventilation duct extending from an above grade inlet."

Applicant submits that the system shown in Figure 1 of Knappe clearly does not read on the system of claim 1. Claim 1 requires, *inter alia*, a body that forms a cavity having a cross-section that accommodates no more than one canister. The claimed system further requires that

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the body contain a ventilation duct extending from an above grade inlet to a below grade outlet that is in spatial cooperation with the cavity. In the system disclosed in Figure 1 of Knappe, the cavity that is formed by the body is the innermost cavity that holds the material 4. As can be seen in Figure 1 of Knappe, the drawing is bifurcated/truncated in a vertical direction directly through this cavity. As a result of this bifurcation, the illustration does not delineate any size to the cross-section of the cavity because the size of the omitted section is indeterminable. Therefore, it is indisputable that Knappe does not disclose a body that forms a cavity having a cross-section that accommodates no more than one canister, as is required by claim 1. It is respectfully requested that the current rejection of claim 1 over Knappe be withdrawn.

Regarding the rejection of claim 3 over Knappe, it is respectfully requested that the rejection be withdrawn. Claim 3 depends on claim 2 which in turn depends on claim 1. Claim 1 requires that the below grade outlet of the ventilation duct be in spatial cooperation with the cavity. As discussed above, the underlined language was added to clarify that the below-grade opening formed a passageway between the at least one inlet ventilation duct and the cavity that stores the spent fuel canister and it is respectfully requested that this claim language be interpreted as such. Claim 3 further requires that this below grade outlet be located at or near the bottom of the cavity. In Knappe system, the only opening of the ventilation duct 3 that forms a passageway into the storage cavity is at the center of the cavity (indicated by the air flow arrow at the left center). See Knappe, Figure 1. There are absolutely no openings in the Knappe system that form a passageway between the ventilation duct 3 and the cavity that are located at or near the bottom of the cavity. It should be noted that the bottom of the ventilation duct 3 of Knappe extends below the cavity and is not in spatial cooperation therewith. Therefore, the rejection of claim 3 over Knappe is improper and it is respectfully requested that the rejection be withdrawn.

Regarding the rejection of claim 6 over Knappe, it is respectfully requested that the rejection be withdrawn. Claim 6 depends on claim 5 which in turn depends on claim 1. Claim 6 requires that the two above grade inlets of the two inlet ventilation ducts be located on opposing side walls of the body. In other words, claim 6 requires that the openings that form act as the above grade inlets be located on opposite side walls of the storage system. The Office Action

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states that this is shown in the system of Figure 2 of Knappe. However, as agreed during the telephone interview, the system shown in Figure 2 of Knappe is not relevant to claim 1. Moreover, a review of the systems shown in Figure 1 of Knappe fails to show this feature. Therefore, the rejection of claim 6 over Knappe is improper and it is respectfully requested that the rejection be withdrawn.

Regarding the rejections of claims 7 and 8 over Knappe, it is respectfully requested that the rejections be withdrawn. Claims 7 and 8 depend on claim 1 and respectively require that "at least a portion of the inlet ventilation duct be insulated from the body" and that "at least a portion of the cavity be insulated from the body." The Office Action generally asserts that air in the Knappe system acts as an insulator. However a review of the Knappe storage system of Figure 1 discloses that the entireties of both the ventilation duct 3 and the storage cavity are in direct contact with the body. The Knappe system is absolutely devoid of any means by which the cavity or the ventilation duct are insulated from the body. Therefore, the rejection of claims 7 and 8 over Knappe is improper and it is respectfully requested that the rejection be withdrawn.

Regarding independent claim 35, the body of claim 1 specifically recites the structure of "a body having a cavity formed by an internal surface of the body." Claim 35 further recites "a canister positioned in the cavity in a vertical orientation." The Office Action states that Figure 1 of Knappe shows a canister positioned in the cavity in a vertical orientation. However, contrary to this assertion, the Knappe system does not disclose a canister. As discussed above, the cavity formed by the body of the Knappe system is the internal volume holding the material 4. The material 4 of Knappe is illustrated as being placed directly in this volume. A canister is not used to contain this material 4, rather, the material 4 is stored openly in this cavity. To interpret the term "canister" to read on any of the structural elements that exist in the cavity of the Knappe system is repugnant to the plain meaning of this word and, thus, is clearly improper. Therefore, the rejection of claim 35 over Knappe is improper and it is respectfully requested that the rejection be withdrawn.

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It is believed that all grounds of rejection and objection have been traversed or obviated, and that the rejections and objection should be withdrawn, and the application allowed.

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